6GT5A

Beam Power Tube

NOVAR TYPE

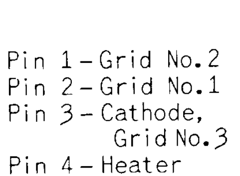
For Horizontal-Deflection-Amplifier Service in Black-and-White TV Receivers

Electrical:

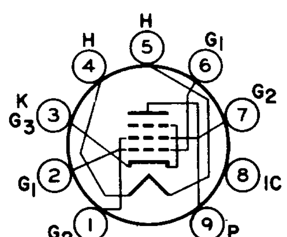
Heater Characteristics and Ratings:		
Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	1.200	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode.	200 max.	volts
Heater positive with respect to cathode.	200[a] max.	volts
Direct Interelectrode Capacitances (Approx):[b]		
Grid No.1 to Plate	0.26	pf
Input: G1 to (K+G3,G2,H).	15.0	pf
Output: P to (K+G3,G2,H).	6.5	pf

Mechanical:

Operating Position	Any
Type of Cathode.	Coated Unipotential
Maximum Overall Length	2.880"
Seated Length.	2.250" to 2.500"
Diameter	1.438" to 1.562"
Dimensional Outline.	See *General Section*
Bulb	T12
Base	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC No.E9-88)
Basing Designation for BOTTOM VIEW	9NZ



Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode, Grid No.3
Pin 4 - Heater



Pin 5 - Heater
Pin 6 - Grid No.1
Pin 7 - Grid No.2
Pin 8 - Do Not Use
Pin 9 - Plate

Characteristics, Class A_1 Amplifier:

	Triode Connection[c]	*Pentode Connection*		
Plate Voltage.	150	60	250	volts
Grid-No.2 Voltage.	150	150	150	volts
Grid-No.1 Voltage.	-22.5	0	-22.5	volts
Amplification Factor	4.4	–	–	
Plate Resistance (Approx.) . .	–	–	15000	ohms
Transconductance	–	–	7100	µmhos
Plate Current.	–	390[d]	70	ma
Grid-No.2 Current.	–	32[d]	2.1	ma
Grid-No.1 Voltage (Approx.) for plate ma = 0.1	–	–	-42	volts

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[e]

DC Plate-Supply Voltage	770 max.	volts
Peak Positive-Pulse Plate Voltage[f]	6500 max.	volts
Peak Negative-Pulse Plate Voltage	1500 max.	volts
DC Grid-No.2 (Screen-Grid) Voltage	220 max.	volts
DC Grid-No.1 (Control-Grid) Voltage	-55 max.	volts
Peak Negative-Pulse Grid-No.1 Voltage	330 max.	volts
Cathode Current:		
Peak	550 max.	ma
Average	175 max.	ma
Grid-No.2 Input	3.5 max.	watts
Plate Dissipation[g]	17.5 max.	watts
Bulb Temperature (At hottest point on bulb surface)	240 max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For grid-resistor-bias operation	1 max.	megohm

[a] The dc component must not exceed 100 volts.

[b] Without external shield.

[c] With grid No. 2 connected to plate.

[d] This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

[e] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

[f] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

[g] An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

AVERAGE CHARACTERISTICS

